

Occurrence Reporting

Advanced Mixed Waste Treatment Project

Approved:

(Signature on file. See DCR-7520.)

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Operations Manager

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Date

Next Periodic Review: 05/30/09

AMWTP MANAGEMENT PROCEDURE		
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REVISION LOG

Revision Number	Date Approved	Pages Affected	Description of Revision
0	2/20/2002	All	Initial issue. DCR-1141
1	3/21/2002	1, 5, 7, 11, 14, 15, 16, B1, B2, B3, E1	Incorporation of DOE comment resolution to Rev. 0. DCR-1155
2	6/20/2002	8	Added requirement to maintain preserved conditions at the scene of an event until released by the General Manager. DCR-1287. This revision also incorporates minor change approved by DCR-1173.
3	2/5/2004	All	Complete re-write due to issuance of new DOE Order, DOE O 231.1A DCR-2539
4	6/28/05	Various	DCR-4301. Incorporate organizational changes made during the transition from BNFL to BBWI.
5	5/11/06	All	DCR-4938 Apply blue sheet changes per DCR-4299, Format to MP-DOCS 18.3, Change to determine appropriate actions and TrackWise™ reporting.
6	08/01/06	Various	DCR-5161. Revise document to satisfy issues identified in DOE Letter (EM-FOAP-06-096) from Michael Adams, dated July 12, 2006.
7	08/25/08	Various	DCR-7312. Revised document to implement DOE Order 210.2 Attachment 2 1.b. Applied blue sheet changes for the Operations plant shift manager and shift supervisor restructuring. Made various editorial changes per MP-DOCS-18.3.
8	10/23/08	Various	DCR-7520. For consistency with DOE requirements, added Category 3's for CAR initiation, added step to evaluate Category 4's, and corrected Appendix to add Prevent Recurrence.

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1.0 PURPOSE/SCOPE

This procedure contains the requirements for occurrence reporting, which includes: (1) categorizing *occurrences* (see def.) related to safety, environment, health, or operations *reportable occurrences* (see def.); (2) notifying the Department of Energy (DOE) of these occurrences; and (3) developing and submitting documented follow-up reports. This procedure further ensures that the notifications are timely in accordance with the significance of the occurrence and that the written reports contain appropriate information describing the occurrence, significance, causal factors, and corrective actions.

Occurrence reporting ensures DOE and the Advanced Mixed Waste Treatment Project (AMWTP) are kept fully informed on a timely basis about *events* (see def.) that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE facilities, or the credibility of the Department and AMWTP. One of the major purposes of this reporting system is to provide feedback of safety and operational information identified in the *occurrence reports* (see def.) to other DOE facilities. In addition, headquarters oversight and assessment organizations may use Occurrence Reporting and Process System (ORPS) information to prepare Safety Notices and other feedback documents. These uses are dependent on the quality of the information reported, which means the information should be thorough and accurate. To this end, occurrence reports should contain sufficient information about the facility operations and the occurrence to facilitate action by other personnel who are unfamiliar with details of the facility, equipment, process, or procedures. Operations and engineering units, as well as other support organizations, should be involved in the identification and assessment of reportable occurrences. Site information, such as operations logs and engineering evaluations, should be used in this process.

Engineering judgment should be used during the review of events and *conditions* (see def.) to ensure that precursors to occurrences are identified and reported. An occurrence that is not serious, given the conditions under which it happened might under different initial conditions be a precursor to a serious event at the same or other facilities.

This procedure applies to all AMWTP facilities and personnel (including occurrences resulting from activities performed by subcontractors), whenever an event/condition is identified, such as those listed in Appendix A, Occurrence Reporting Criterion.

Events determined by the nuclear facility manager (NFM) or plant shift manager (PSM) to be not reportable are not subject to the reporting requirements of this procedure; however, *non-reportable* events shall be included in the periodic performance analysis required by Section 3.14.3.

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2.0 ROLES AND RESPONSIBILITIES

Performer	Responsibilities
Operations Manager (OM)	<ul style="list-style-type: none">• Ensures this procedure is implemented for notification and reporting that meet the requirements of this procedure• Ensures that the AMWTP complies with the requirements of this occurrence reporting procedure• Provides coordination and monitoring of the occurrence reporting system.
NFM/Production Manager (PM)	<ul style="list-style-type: none">• Direct line responsibility for operation of a nuclear facility or group of related nuclear facilities, including authority to direct physical changes to the facility.
<i>Trained Investigator</i> (see def.)	<ul style="list-style-type: none">• Trained personnel assigned to investigate events.
PSM	<ul style="list-style-type: none">• Actively monitors day-to-day operations and performance of facilities/activities under their cognizance.
Quality Assurance (QA) Manager	<ul style="list-style-type: none">• Evaluates occurrence reports for the identification and resolution of Price Anderson non-compliance.

3.0 PROCEDURE

3.1 General Information

- 3.1.1 For reportable occurrences, the occurrence shall be categorized, the DOE notified as required, and an occurrence report prepared and submitted in accordance with this procedure.
- 3.1.2 The documentation and distribution requirements for occurrence reports will be satisfied by utilization of a centralized unclassified DOE operational database, the computerized ORPS. However, under no circumstances will occurrence reports containing classified information or Unclassified Controlled Nuclear Information (UCNI) be entered into the ORPS database.
- 3.1.3 Occurrences involving foreign personnel, governments, organizations, entities or influence must be reported to the Office of Counterintelligence or the Office of Defense Nuclear Counterintelligence, as appropriate. Such reporting is not intended to interfere with or delay any actions directed toward protection of personnel or property.

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3.2 Responsibilities

- 3.2.1 OM: Ensure this procedure is implemented for notification and reporting by meeting the following requirements:

NOTE: *The information collected and disseminated in the following step includes both lessons learned (see def.) and good practices.*

- 3.2.1.1 Ensure that occurrence reports and operations information from AMWTP facilities and similar DOE facilities is collected and disseminated to appropriate personnel within their cognizance, and that this information is reviewed for generic implications, and is used to improve operations.
- 3.2.1.1.1 Use this information, as applicable, for trending and analysis and for early identification and correction of deteriorating conditions.
- 3.2.1.2 Identify and share with others lessons learned and generic or programmatic implications from occurrences and take actions to minimize or prevent recurrence.
- 3.2.1.3 Review and assess reportable occurrence information for AMWTP to assess generic implications and corrective action(s) implementation, closeout, and effectiveness, as required; to identify and report recurring events, and to ensure that facility personnel involved in these operations perform the related functions.

- 3.2.2 NFM/PM/PSM: Perform the following activities:

- 3.2.2.1 Actively monitor day-to-day operations and performance of facilities/activities within your cognizance.
- 3.2.2.2 Determine causes and generic implications, and implement corrective actions and closeout activities for reportable occurrences.
- 3.2.2.3 NFM/PSM: Categorize occurrences in accordance with Section 3.16 of this procedure within 2 hours of discovery.
- 3.2.2.4 Prepare and transmit occurrence reports.

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- 3.2.2.5 Ensure occurrence reports are prepared and transmitted in accordance with DOE information security requirements.
- 3.2.2.6 NFM/PSM/PM: Ensure a Corrective Action Report is initiated for reportable occurrences.
- 3.2.2.7 Ensure the QA manager is informed of occurrences to ensure an evaluation is conducted for the identification and resolution of Price Anderson non-compliance in accordance with MP-Q&SI-5.2, Price Anderson Amendment Act Reporting.
- 3.2.3 OM: Ensure that the AMWTP complies with the requirements of this occurrence reporting procedure. Specifically:
- 3.2.3.1 Provide adequate coordination and monitoring of the occurrence reporting system in the following areas:
- Timeliness of the identification, verbal notifications, and written report requirements
 - Quality of occurrence reports
 - Performance analysis.
- 3.2.3.2 Ensure occurrence report information is maintained current on the ORPS database.
- 3.2.3.3 Provide interpretative authority for occurrence reporting requirements.
- 3.2.3.4 Maintain an authority file of personnel authorized ORPS access.
- 3.2.3.5 Provide assistance to the NFM and PSMs in preparing and transmitting occurrence reports as requested.
- 3.2.3.6 Perform the quarterly analysis of events in the last 12 months looking for trends.

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3.3 Event or Condition Identification

NOTE: *In case of fire or medical emergencies on-site, calling Extension 777 results in the fastest response by emergency response personnel. For offsite fire or medical emergencies, calling 9-911 will result in the fastest response.*

- 3.3.1 Facility Personnel: Identify occurrences by direct observation of equipment or process malfunctions, log or record reviews, operator recognition of your own or others' errors, or by other means.
- 3.3.2 Take appropriate immediate action to stabilize and/or place the facility/operation in a safe condition and ensure that any potential environmental effects are stabilized and workers are treated for injuries sustained.
- 3.3.3 Take actions to preserve conditions for continued investigation; however, these actions are not to interfere with establishing a safe condition.
- 3.3.4 Upon identification of an abnormal or suspected abnormal event or condition, promptly notify line management of the event status and record and/or archive all pertinent information, including details concerning the discovery of the occurrence and actions taken to stabilize or place the facility/operation in a safe condition.
- 3.3.5 PSM: Perform the following actions when an event or condition is identified:
 - 3.3.5.1 Initiate appropriate actions in situations requiring a response, including directing personnel in response to the event/condition.
 - 3.3.5.2 Notify the AMWTP Emergency Action manager.
 - 3.3.5.3 Notify the AMWTP PM, NFM, and OM as soon as possible.
 - 3.3.5.4 Make timely notification to security personnel if required.
 - 3.3.5.5 Ensure the AMWTP Public Relations director is notified in a timely fashion.
 - 3.3.5.6 Determine the condition of the affected system(s).

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- 3.3.5.7 Ensure the operability of all safety-related system(s).
- 3.3.5.8 Decide if continued operation is justified or if systems are available to support safe facility shutdown.
- 3.3.5.9 Minimize the impact of discovered acts of sabotage if required and attempt to deter further acts of sabotage if possible.

3.4 Event or Condition Categorization

- 3.4.1 NFM/PSM: Categorize all occurrences except Operational Emergencies in accordance with Appendix A, within 2 hours of discovery.

NOTE: *The significance categories are for those occurrences of interest for complex-wide occurrence reporting and are described very generally below. More definitively, Appendix A provides very specific reporting criteria and assigns the appropriate significance category to each criterion.*

- 3.4.2 Operational Emergencies (OE). Operational Emergency occurrences are the most serious occurrences and require an increased alert status for onsite personnel and, in specified cases, for offsite authorities. (Operational Emergencies are defined in DOE O 151.1A, Comprehensive Emergency Management System. The *prompt notification* [see def.] requirements, definitions, criteria, and classifications of operational emergencies and appropriate responses are provided in DOE O 151.1A and implemented at the AMWTP by MP-EP&C-12.1, Emergency Plan.) Written occurrence reports, however, must be completed for Operational Emergency occurrences in accordance with this procedure.

- 3.4.2.1 Significance Category 1. Occurrences in this category are those that are not Operational Emergencies and that have a *significant impact* on safe facility operations, worker or public safety and health, regulatory compliance, or public/business interests.
- 3.4.2.2 Significance Category R. Occurrences in this category are those identified as recurring, as determined from the periodic performance analysis of occurrences across a site.

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3.4.2.3 Significance Category 2. Occurrences in this category are those that are not Operational Emergencies and that have a *moderate impact* on safe facility operations, worker or public safety and health, regulatory compliance, or public/business interests.

3.4.2.4 Significance Category 3. Occurrences in this category are those that are not Operational Emergencies and that have a *minor impact* on safe facility operations, worker or public safety and health, regulatory compliance, or public/business interests.

3.4.2.5 Significance Category 4. Occurrences in this category are those that are not Operational Emergencies and that have *some impact* on safe facility operations, worker or public safety and health, or public/business interests.

3.4.3 If the consequences are not fully determined or the event exceeds the threshold of more than one criterion (listed in Appendix A), then categorize the event at the higher criteria level being considered.

3.4.4 Elevate, maintain, or lower the occurrence criterion as information is made available.

3.4.5 QA Manager: Ensure an evaluation is conducted for occurrence reports for the identification and resolution of Price Anderson non-compliance in accordance with MP-Q&SI-5.2.

NOTE: Any condition adverse to quality (CAQ; see def.) will be addressed in accordance with the instructions of MP-QS&I-5.3, regardless of the ORPS reporting significance category.

3.4.6 NFM/PSM/PM: Initiate a Corrective Action Report in accordance with MP-Q&SI-5.3, Corrective Action, for all Significance Category 1, 2, 3, or R events.

3.4.6.1 Evaluate Significance Category 4 events to determine what corrective action is appropriate in accordance with MP-Q&SI-5.3.

3.4.6.2 Use TrackWise™ to track any subsequent corrective actions resulting from the event. (TrackWise™ will serve as the process for notifying the QA manager of the event.)

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3.5 DOE Headquarters Operations Center Prompt Notifications

NOTE: *If necessary, or desired, the INL Warning Communications Center can be utilized to expedite establishing the communication link required and to record and archive conversations with DOE Headquarters.*

3.5.1 NFM/PSM: Provide prompt notification for Operational Emergencies as follows:

NOTE: *For Operational Emergencies, completion of the notification process in accordance with MP-EP&C-12.5, Emergency Event Notification, meets the requirements of this procedure for completing notifications.*

3.5.1.1 If an event has been declared an Operational Emergency, submit a written *Notification Report* (see def.) in accordance with this procedure.

3.5.2 Provide prompt notifications for Significance Category 1, 2, 3, and 4 Reportable Occurrences as follows:

- 3.5.2.1 Promptly notify the DOE *Facility Representative* (see def.) verbally and notify the DOE Headquarters Operations Center (DOE HQ OC), as required by Section 3.5.3 below for prompt notifications, of the following reportable occurrences as soon as practical, but no later than 2 hours after categorization:
- All Significance Category 1 occurrences require a prompt notification to the Facility Representative and DOE HQ OC
 - All Significance Category 2 occurrences require a prompt notification to the Facility Representative and, if directed by the Facility Representative, to the DOE HQ OC
 - All Significance Category 3 occurrences require a prompt notification to the Facility Representative
 - Additionally, specific Significance Category 2, 3, and 4 occurrences (identified as requiring prompt notification with an asterisk in the reporting criteria listed in Appendix A) require prompt notification to the Facility Representative and DOE HQ OC.

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- 3.5.3 Make prompt notification to DOE HQ OC of the reportable occurrence via e-mail, and followed up with a phone call to the DOE HQ OC to ensure receipt of the e-mail and to clarify any areas that may not be clear.

E-Mail: doehqeoc@oem.doe.gov

Phone: (202) 586-8100

Fax: (202) 586-8485

- 3.5.4 In the prompt notification, clearly state/select the Significance Category (1, R, 2, 3, or 4) and identify the specific reporting criteria associated with the occurrence.

- 3.5.5 In the prompt notification to the DOE HQ OC, include information on the following items:

- Occurrence Significance Category
- Location and description of the event
- *Date and time of discovery* (see def.)
- Damage and casualties
- Impact of event on other activities and operations
- Protective actions taken or recommended
- Weather conditions at the scene
- Level of media interest at scene/facility/site
- Other notifications made.

- 3.5.6 Ensure all information is clear and succinct. Avoid jargon.

- 3.5.6.1 Fully describe uncommon or site/facility-specific abbreviations and acronyms.

- 3.5.7 If the notification to DOE may contain classified or sensitive information, follow the appropriate security procedures.

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3.5.8 If the occurrence is re-categorized, then reconsider the occurrence for prompt notification.

3.5.8.1 If appropriate, notify the Facility Representative and the DOE HQ OC as soon as practical, but within the prompt notification time requirements of the new Significance Category for the re-categorized occurrence and provide the occurrence report number.

3.5.9 Make follow-up notifications to DOE for any further degradation in the level of safety or impact on the environment, health, or operations of the facility or other worsening conditions subsequent to the previous notification.

3.5.10 If degradation results in upgrading the event to an Operational Emergency, notify the DOE HQ OC.

3.6 Written Notification Report

3.6.1 NFM/PSM: Submit all reports containing classified information, UCNI, or other controlled information in hard copy in accordance with established security requirements.

3.6.1.1 Enter an unclassified version of the occurrence report that has been sanitized of all controlled information into the ORPS database.

3.6.2 Complete all ORPS reportable fields. (See Appendix B, Occurrence Report Preparation Instructions, for a list of all ORPS reportable fields.)

- Fields marked with an asterisk (*) preceding them are required for all (notification, update, final, and short form) reports.
- Fields marked with a pound sign (#) are required under certain conditions, for example, depending on occurrence type, report type, or the answer to a previous question.
- Items 1 through 13, 16 through 22, 24, 25, 28 through 30, and 34 of the occurrence report are required fields for the Notification Report, with some of these fields computer generated.

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- *Short Form Reports* (see def.) require all of the Notification Report required fields plus Item 35.
- In both the Notification Report and the Short Form Report, additional fields may be required depending on the circumstances (e.g., Items 14 and 15).
- For all reports, data may be entered in the remaining fields when known.

3.6.3 For the Update and Final Reports, retain information on the Notification Report and update as better and additional information becomes available.

NOTE: *The Facility Representative and Program Manager (see def.) may provide comments in Items 38 and 39, respectively, for all reports, except reports that have already been finalized (which includes Short Form Reports).*

3.6.4 In preparing the Notification Report, and subsequently the Final Report, follow the writing instructions below:

3.6.4.1 Ensure the report enables the general reader to understand the basic “what, who, when, where, how” of the event, the safety issues involved, and the actions taken.

3.6.4.2 Ensure the Subject/Title and the first paragraph of the Occurrence Description relays the essential nature of the event (i.e., a summary of the occurrence in newspaper style).

3.6.4.3 Ensure all information is clear and succinct. Avoid redundant and unnecessary text, and lengthy “log book” accounts, unless a discussion of the event in chronological order is considered essential to understanding the event.

NOTE: *Complex and more significant occurrences should warrant a greater level of detail. Significance Category 4 occurrences would likely need only a short paragraph under Occurrence Description.*

3.6.4.4 In all reports, present enough information so that the general reader understands why the event needs to be reported and what the effect is.

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- 3.6.4.5 Avoid jargon and uncommon or site/facility-specific abbreviations and acronyms. If used, acronyms should be initially spelled out.
- 3.6.4.6 Unless necessary to record and explain the event (e.g., suspect/counterfeit *items* (see def.) or material), use general descriptions of equipment, procedures, etc., rather than presenting lengthy detailed titles and the numbers and letters assigned to those items.
- 3.6.4.7 Quantify the level of contamination, dose, *release* (see def.), and damage (e.g., estimate the acres of wild land burned) when possible, instead of merely stating a reportable limit was exceeded.
- 3.6.4.8 Use active rather than passive voice whenever possible. For example, write, “the electrician severed the conduit” rather than “the conduit was severed.”
- 3.6.4.9 When appropriate for clarification, maintain photos, sketches, and drawings with the ORPS occurrence report record. In addition, it is encouraged but not required to make photos, sketches, and drawings available via a Web page, with the Web page address included as a hyperlink in the ORPS report.

3.7 Information Security Requirements

- 3.7.1 NFM/PSM: Do not enter occurrence reports containing any classified information, UCNI, or other controlled information into the ORPS database.
- 3.7.2 Ensure that a review is performed prior to ORPS data entry to preclude contamination of the database with classified, UCNI, official use only or other controlled information.

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- 3.7.3 Submit any ORPS reports that are determined to be classified or controlled by current classification or control guidance using the appropriate secure transmission means.

NOTE: *Reports for occurrences involving classified information or UCNI will only be prepared in written form.*

- 3.7.3.1 After the classified information and UCNI is removed, enter the report into ORPS.

- 3.7.3.2 With the exception of entry into the ORPS database, ensure all other reporting requirements identified in this procedure are met.

NOTE: *Occurrence reports involving incidents of counterintelligence concern (e.g., foreign persons, governments, organizations, entities, or influence) will not be entered or referenced in the ORPS database.*

- 3.7.3.3 Submit an unclassified version of the occurrence report that has been sanitized of all controlled information to ORPS within the required time frames specified in Section 5.

3.8 Notification Report Submittal Schedule

- 3.8.1 NFM/PSM: Submit the written Notification Report according to the following schedule:

- 3.8.1.1 Submit reports for Operational Emergencies and Significance Category 1 occurrences before the close of the next *business day* (see def.) from the time of categorization (not to exceed 80 hours).

- 3.8.1.2 Submit reports for Significance Categories R and 2 occurrences before the close of the next business day from the time of categorization.

- 3.8.1.3 Submit reports for Significance Category 3 occurrences no later than close of business of the second business day from the time of categorization.

- 3.8.1.3.1 Immediately upon submittal, notify the Facility Representative and update the ORPS report with that notification.

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NOTE: *The Facility Representative is required to notify the identified PM, NFM, or OM within 24 hours of concurrence with categorization from time the Facility Representative was notified.*

3.8.1.3.2 If the Facility Representative does not provide concurrence within 24 hours, proceed with all activities as outlined on the occurrence report.

3.8.1.4 Submit reports for Significance Category 4 occurrences (only a Short Form Report is required) by close of business of the second business day from the time of categorization.

3.8.1.4.1 Immediately upon submittal, notify the Facility Representative and update the ORPS report with that notification.

NOTE: *The Facility Representative is required to notify the identified PM, NFM, or OM within 24 hours of concurrence with categorization from time the Facility Representative was notified.*

3.8.1.4.2 If the Facility Representative does not provide concurrence within 24 hours, proceed with all activities as outlined on the occurrence report.

3.9 Occurrence Investigation and Analysis

In general, the *occurrence investigation* (see def.) process is used to gain an understanding of the occurrence, its causes, and the corrective actions necessary to prevent recurrence or only remedy the problem, based on the significance of the occurrence.

3.9.1 NFM/PSM/PM: Refer to Appendix C, Occurrence Reporting Model, for specific investigation requirements.

3.9.2 If DOE is doing a Type A or B investigation, an identical investigation is not required. However, AMWTP is still required to do the preliminary assembly of information to turn over to the DOE Accident Investigation Board, in accordance with DOE O 225.1A, Accident Investigation.

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- 3.9.3 Use a graded approach when determining the level of effort required for the investigation into the causes of the occurrence. This graded approach is based on the significance, severity, or risk associated with the event or condition.
- 3.9.4 For Operational Emergencies, in general, have the investigation, problem analysis, and corrective action process parallel the process for Significance Category 1 occurrences.

NOTE: *A graded approach will still be considered when determining the level of effort for the investigation into the cause of the Operational Emergency. For this purpose, the graded approach is based on whether the Operational Emergency was directly caused by DOE operations or resulted from non-DOE operations or natural phenomena. For example, investigations of an Operational Emergency involving the release of hazardous materials might require an accident investigation or the assembly of a team of investigators and subject matter experts. Investigation of an Operational Emergency resulting from a DOE facility (see def.) being required to implement protective actions because a non-DOE activity offsite released hazardous materials or an Operational Emergency resulting from an earthquake may not require root cause determination because the initiating event was clearly beyond DOE's control.*

- 3.9.5 Identify all causes as required and include in the occurrence report.
- The cause codes to be used for reporting are provided in the Causal Analysis Tree, located in Section 11 of DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information.
 - Guidance on selecting the appropriate cause code is provided in DOE G 231.1-2, Occurrence Reporting Causal Analysis Guide.
- 3.9.6 In the Cause Description field, include a brief discussion to clearly link the event to the cause code(s).

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- 3.9.7 For those occurrences that require a formal root cause analysis, include the methodology used in the Cause Description field of the occurrence report. Occurrences that require a formal root cause analysis are:
- Operational Emergencies
 - Significance Category 1 occurrences
 - Significance Category R occurrences
 - Significance Category 2 occurrences.
- 3.9.8 In the cause Description Field, include a brief discussion to describe the linkage of the identified cause codes to the associated causal factors for the event.
- 3.9.9 In addition to determining the causes of the occurrence, identify any weaknesses in implementation of the Integrated Safety Management (ISM) program and enter in the ISM field.
- 3.9.10 Using a graded approach, consult in a timely manner with the Facility Representative and the Program Manager, as appropriate, for their assessment, if any, of the occurrence.

3.10 Update Reports

- 3.10.1 NFM/PSM: Submit and distribute an Update Report as required per the following criteria:
- When the Significance Category of the occurrence has been changed for all occurrences, with the exception of Significance Category 4 occurrences, and when there is any significant and new information about the occurrence
 - The status of the investigation, recurring consequences, and the identification of additional component defects are activities associated with the occurrence and must be included in Update Reports

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- If a Final Report cannot be completed and submitted within 45 calendar days after initial categorization, an Update Report must be submitted within the 45 days
- The Update Report must provide a detailed explanation of the delay and provide an estimated date for submittal of the Final Report. This information must be reported in the “Evaluation” block of the occurrence report.
- If a revised Final Report cannot be resubmitted within 21 days of rejection of a Final Report by the Facility Representative or the Program Manager, an Update Report must be submitted within the 21 calendar days explaining the delay and providing an estimated date for resubmittal of the Final Report. This information must be reported in the “Evaluation” block of the occurrence report.

3.11 Occurrence Report Closure

3.11.1 NFM/PSM: Submit a Final Report for all occurrences except those categorized as Significance Category 4 as follows:

3.11.1.1 Submit Categories 1, 2, and R and Operational Emergencies as follows:

- 3.11.1.1.1 Prepare and submit the Final Report as soon as practical but within 45 calendar days after initial categorization of the occurrence.
- 3.11.1.1.2 NFM/PSM/PM/Responsible Manager: Develop and submit lessons learned to the DOE lessons-learned database for Type A or Type B accidents. (See DOE O 225.1A.)
- 3.11.1.1.3 Develop and submit lessons learned to the DOE lessons-learned database for any Significance Category 1 or recurring events. (See DOE M 231.1-2, Section 5.2.)

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3.11.1.1.4 NFM/PSM: Prepare the Final Report using the writing instructions listed in Section 3.6.4 and document the following:

- The significance, nature, and extent of the event or condition
- The causes of the event or condition (including the root cause, as required), using the codes provided in the Causal Analysis Tree (Section 11, DOE M 231.1-2)
- The immediate actions taken and the corrective action(s) to be taken, as required by Appendix C
- The lessons learned, as applicable.

3.11.1.1.4.1 For occurrences resulting in an accident investigation, include all causes (direct, contributing, and root) identified in the accident investigation report, as well as the corrective actions developed in response to the judgments of need, in the Final Report.

3.11.1.1.5 If the Facility Representative or the Program Manager, as appropriate, does not approve the Final Report, then submit a revised Final Report within 21 calendar days of the disapproval.

3.11.1.1.6 Obtain a status report of all incomplete occurrence reports (non-final) at anytime from the ORPS database.

3.11.1.1.7 Retain all supporting information pertaining to each occurrence or report (e.g., graphs, analyses, and formal investigation reports).

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3.11.1.2 Submit Category 3 Final Reports as follows:

3.11.1.2.1 Prepare and submit the Updated Report as soon as practical but within 31 calendar days after initial categorization of the occurrence.

3.11.1.2.2 Prepare the Update Report using the writing instructions listed in Section 3.6.4 and document the following:

- The significance, nature, and extent of the event or condition
- The causes of the event or condition (including the root cause, as required), using the codes provided in the Causal Analysis Tree (Section 11, DOE M 231.1-2)
- The immediate actions taken and the corrective action(s) to be taken, as required by Appendix C
- The lessons learned.

3.11.1.2.3 Immediately notify the Facility Representative that an Update has been submitted that is the Final Report for their review.

3.11.1.2.3.1 Include in the Update the time the Facility Representative was notified.

NOTE: *The Facility Representative has 14 days to review the report and concur with its content.*

3.11.1.2.4 If the Facility Representative has not provided concurrence within 14 days, then submit the Update as a Final Report within 45 days of initial categorization.

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NOTE: *The Facility Representative can determine if Category 3 occurrence reports warrant corrective action(s) to prevent recurrence.*

3.11.1.2.5 During the 14-day review period, provide comments from the Facility Representative on Update Reports to the PM, NFM, and OM. These comments will be resolved with concurrence from the Facility Representative, and a Final Report submitted within 45 days of initial categorization.

3.11.1.2.6 For occurrences resulting in an accident investigation, include all causes (direct, contributing, and root) identified in the accident investigation report, as well as the corrective actions developed in response to the judgments of need, in the Final Report.

3.11.1.2.7 If the Facility Representative or the Program Manager, as appropriate, does not approve the Final Report, then submit a revised Final Report within 21 calendar days of the disapproval.

3.11.1.2.8 Obtain a status report of all incomplete occurrence reports (non-final) at anytime from the ORPS database.

3.11.1.2.9 Retain all supporting information pertaining to each occurrence or report (e.g., graphs, analyses, and formal investigation reports).

3.12 Occurrence Report Distribution

NOTE: *If the occurrence reports are entered into the ORPS database, the distribution requirement is automatically satisfied.*

3.12.1 NFM/PSM: Distribute all occurrence reports to the following:

- Facility Representative
- Program Manager
- Heads of all field organizations

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- Office of Environment, Safety and Health (Office of Performance Assessment and Analysis) and Administrator (NNSA)
- DOE Management and Operations or integrating contractors.

3.12.2 Make distribution of written reports containing classified or controlled information in accordance with AMWTP security procedures.

3.13 Corrective Action Tracking and Closure

3.13.1 NFM/PM/Responsible Manager: Depending on the Significance Category, track all corrective actions to closure, including independent verification or sampling of corrective actions identified to prevent recurrence, at the facility level.

3.13.1.1 Evaluate the effectiveness of the corrective actions to prevent recurrence (if applicable).

3.13.2 Track corrective actions associated with occurrence reports using the TrackWise™ issues management system.

3.13.3 NFM/PSM: Include corrective actions in all Final Reports. (Corrective actions are optional for inclusion in Short Form Reports.)

3.13.4 Enter into the ORPS Report a complete description of the corrective action and the target date when completion of the corrective action is anticipated. A complete list of corrective actions should be included in the report to ensure it can stand on its own (i.e., reviewers do not have to search for other reports, etc).

3.13.5 Update ORPS with any changes made to the corrective actions tracked in TrackWise™ (with the exception of Note 2 below).

3.13.5.1 For Significance Category 3 and higher reports, update in ORPS any text changed to a corrective action previously entered in ORPS, with Facility Representative approval.

NOTE 1: *All corrective action items with TrackWise™ Item Numbers entered into the ORPS Local Tracking # field are considered closed.*

NOTE 2: *The actual completion date is not required and need not be entered.*

3.13.6 Enter the specific corrective action tracking number (TrackWise™ Item Number) into ORPS Local Tracking # field.

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3.14 Performance Analysis and Identification of Recurring Occurrences

- 3.14.1 NFM/PM: Perform ongoing analyses of events during a 12-month period, but as a minimum quarterly, to look for trends.
- 3.14.2 Use DOE G 231.1-1, Occurrence Reporting and Performance Analysis Guide, as necessary, to facilitate the performance analysis and identification of recurring occurrences.
- 3.14.3 During this periodic performance analysis, evaluate occurrences of all significance categories plus contractor-/operator-determined *non-reportable events* (see def.) to prevent serious events from occurring.
 - 3.14.3.1 Report quarterly performance analysis results to AMWTP and DOE line management to achieve improvements.
- 3.14.4 If occurrences are identified as recurring, submit a new occurrence report for notification of the recurring issue, with investigation, root cause analysis, and corrective actions.
 - 3.14.4.1 Provide previous individual occurrence report numbers associated with the recurring issue in the Similar Occurrence Report Numbers field.
 - 3.14.4.2 Select the appropriate reporting criteria associated with the recurring issue. If no specific reporting criteria can be identified, the Reporting Criteria should be listed as Group 10, Criteria #2.
 - 3.14.4.3 Categorize and report recurring occurrences collectively as a Significance Category R occurrence, even if each individual occurrence had been originally categorized at a higher or lower significance level (e.g., as Significance Category 1 or 4 or even as non-reportable occurrences).

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3.15 Training

3.15.1 OM: Ensure AMWTP personnel identified on the current ORPS database Occurrence Reporting Authority Report are trained to the following requirements:

- Indoctrination in the objectives and process of occurrence reporting as defined in the occurrence reporting requirements documents
- Identification of reportable occurrences and their categorization, notification, and associated reporting requirements; analysis, determination, and coding of causes; identification of generic implications; and management of corrective actions
- Utilization of ORPS, including input of occurrence reports and obtaining information from the database
- Where applicable, the preparation of occurrence reports that may include classified information or unclassified controlled information (e.g., OUC or UCNI), including the sanitization of the report for entry into ORPS.

3.15.2 Ensure AMWTP personnel assigned to investigate events requiring a Trained Investigator are trained to the following requirements:

- Utilization of the Causal Analysis Tree located in Section 11 of DOE M 231.1-2.

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3.16 Reporting Criteria and Categorization Instructions

3.16.1 NFM/PSM: Perform categorization of occurrences at the criterion level.

NOTE 1: *The reporting of safeguards and security events is addressed by DOE N 471.3, Reporting of Events of Security Concern. Such events are not reported in ORPS unless they involve other consequences that meet the ORPS reporting criteria presented herein.*

NOTE 2: *The following are the reporting criteria, categorized into 10 major groups and appropriate subgroups related to DOE operations. This list provides a minimum set of requirements necessary to report occurrences applicable to AMWTP operations.*

3.16.2 Categorize occurrences per the following 10 major groups of occurrences:

Group 1 - Operational Emergencies

Group 2 - Personnel Safety

Group 3 - Nuclear Safety Basis

Group 4 - Facility Status

Group 5 - Environmental

Group 6 - Contamination/Radiation Control

Group 7 - Nuclear Explosive Safety (not applicable to AMWTP)

Group 8 – *Transportation* (see def.)

Group 9 - Noncompliance Notifications

Group 10 - Management Concerns/Issues.

3.16.3 Refer to Appendix A for a list of the specific occurrence reporting criteria for each major group of occurrences.

NOTE 1: *An event can meet multiple reporting criteria that establish it as an occurrence. Some criteria are “secondary” in that they complement other reporting criteria that require occurrence reporting.*

NOTE 2: *Each criterion is denoted by its Group, Subgroup (if applicable), and sequence number (#). For example, the violation of a safety limit is denoted as Group 3, Subgroup A, Sequence (1) or “3A(1).”*

3.16.4 Record all of the applicable criteria.

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NOTE 1: *The reporting criteria presented in Appendix A list a specific Significance Category (SC) for each criterion, between the sequence number (#) and the criterion text. Significance Categories are designated as “OE” for Operational Emergencies, “R” for recurring occurrences, or 1, 2, 3, or 4. For example, the Significance Category for a Stop Work Order issued by a DOE office, criterion 4B(1), is SC 2.*

NOTE 2: *Asterisks (*) next to the significance categories in Appendix A denote those occurrences requiring prompt notification to the DOE HQ OC. Section 3.5.1 of this procedure defines the prompt notification requirements.*

3.16.5 For Operational Emergencies, Significance Category 1, and some other occurrences in lesser significance categories, promptly notify the DOE HQ OC.

NOTE: *DOE O 151.1A describes initiating events that are considered Operational Emergencies. DOE O 225.1A defines when Type A or B accident investigations should be initiated.*

3.16.6 While some Operational Emergencies and some other ORPS occurrences involve conditions that would be sufficient to initiate accident investigations, use criterion 10(1) in Appendix A to report the actual initiation of Type A or B accident investigations.

3.17 Instructions for Completing an Occurrence Report

NOTE: *Appendix B lists all of the ORPS reportable fields and includes specific AMWTP information that is required to be included in all ORPS reports.*

3.17.1 NFM/PSM: Refer to Appendix B for instructions specific to completing an occurrence report at the AMWTP.

3.17.2 Refer to DOE G 231.1-1, Occurrence Reporting and Performance Analysis Guide, for specific instructions on the reporting of occurrences via hard copy or the ORPS database.

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NOTE: *The documentation and distribution requirements of this procedure will be satisfied by utilization of ORPS.*

3.17.3 Submit all reports containing classified information or UCNI in hard copy in accordance with established security requirements.

3.17.3.1 Submit an unclassified version of the occurrence report that has been sanitized of all controlled information to ORPS within the time frames specified in Section 3.8.

4.0 DEFINITIONS

Business Day. The normal administrative day of the reporting organization (e.g., Monday through Friday, 0800 to 1700) during which normal work activities are conducted. It is not meant to encompass the 24 hours in a day, even if the facility is operated or maintained on a 24-hour basis.

Committed Dose Equivalent. The predicted total dose equivalent to a tissue or organ over a 50-year period after a known intake of a radionuclide into the body. It does not include contributions from external dose. (See DOE O 5400.5 for further definitions.)

Committed Effective Dose Equivalent. The sum of the *committed dose equivalents* (see def.) to various tissues in the body, each multiplied by the appropriate weighting factor. (See DOE O 5400.5 for further definitions.)

Condition. Any as-found state, whether or not resulting from an event, that may have adverse safety, health, quality assurance, operational or environmental implications. A condition is usually programmatic in nature; for example, errors in analysis or calculation; anomalies associated with design or performance; or items indicating a weakness in the management process are all conditions.

Condition Adverse to Quality. An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, and nonconformances. A significant condition adverse to quality is one that, if uncorrected, could have a serious effect on safety or operability.” Corrective Action is defined as “Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

Date and Time of Discovery. The discovery date and time is when the facility staff discovered or became aware of the event or condition. The facility staff is those personnel assigned to the facility and cognizant of the area in which the event or condition is identified.

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Discharge. Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of *oil* (see def.), but excludes discharges in compliance with a permit under Chapter 402 of the Clean Water Act (CWA); discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under Chapter 402 of the CWA and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under Chapter 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems.

DOE Facility. Any equipment, structure, system, process, or activity that fulfills a specific purpose. Examples include accelerators, storage areas, fusion research devices, nuclear reactors, production or processing plants, coal conversion plants, magnetohydrodynamic experiments, windmills, radioactive waste disposal systems and burial grounds, environmental restoration activities, testing laboratories, research laboratories, transportation activities, and accommodations for analytical examinations of irradiated and unirradiated components.

Effective Dose Equivalent. The summation of the products of the dose equivalent received by specified tissues of the body and a tissue-specific weighting factor. (See DOE O 5400.5 for further definitions.)

Event. Something significant and real-time that happens (e.g., pipe break, valve failure, loss of power, environmental spill, earthquake, tornado, flood).

Facility Representative. For each major facility or group of lesser facilities, an individual or designee assigned responsibility by the Head of Field Element/Operations Organization (including NNSA) for monitoring the performance of the facility and its operations. This individual should be the primary point of contact with the facility operating personnel and will be responsible to the appropriate *Secretarial Officer* (see def.)/Deputy Administrator (NNSA) and head of Field Element/Operations Organization for implementing occurrence reporting requirements.

Item. (1) An all-inclusive term used in place of the following: appurtenance, sample, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, or support systems, documented concepts, or data. (2) When used in reference to nuclear material, a visible, single piece or container of nuclear material with a unique identification and known nuclear material mass.

Lessons Learned. A “good work practice” or innovative approach that is identified and shared, or an adverse work practice or experience that is shared to avoid recurrence.

Member of the Public. Persons who are not occupationally associated with DOE facilities or operations; (i.e., persons whose assigned occupational duties do not require them to enter the DOE site).

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Non-Reportable Event. An event that falls within the ORPS Reporting Groups, does not exceed any of the specific ORPS Reporting Criteria, and the reporting organization has determined to be included in the required ORPS Performance Analysis activity.

Notification Report. The initial documented report, to the Department, of an event or condition that meets the reporting criteria defined in this Procedure.

Occurrence Investigation. An investigation conducted according to site-specific procedures and/or when determined by DOE procedures that a Type A or B investigation is required.

Occurrence Report. A documented evaluation of an event or condition that is prepared in sufficient detail to enable the reader to assess its significance, consequences, or implications and to evaluate the actions being proposed or employed to correct the condition or to avoid recurrence.

Occurrence. One or more (i.e., recurring) events or conditions that adversely affect, or may adversely affect, DOE (including NNSA) or contractor personnel, the *public* (see def.), property, the environment, or the DOE mission. Events or conditions meeting the criteria thresholds identified in this Procedure or determined to be recurring through performance analysis are occurrences.

Oil. Oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Performance Degradation. Failure or degradation of a facility, process, system, or component that reduces the reliability of critical components of the facility whose loss or degradation prevents the system from performing its intended function. Performance degradation does not include: (1) a burned out power indicator light on a piece of radiation monitoring equipment which does not prevent the equipment from detecting elevated radiation levels and alarming as designed; (2) a piece of equipment that is determined to be out of calibration on the conservative side (such as a low level alarm that alarms at a higher value than it should); or (3) the temporary loss of a component where redundant components are maintained operable or in operation and the authorization basis is not compromised.

Personnel Exposure. An incident of contact or encounter with a hazardous chemical, physical, biological, or energetic agent at one of the exchange boundaries of the organism (e.g., skin, respiratory system, eyes, ears, or digestive system). "Exposure" does not refer to a situation where personnel, protected by appropriate personal protective equipment, are subjected to an environment whose ambient conditions present a harmful level of any one, or combination of, the hazards.

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Primary Confinement. Provides confinement of hazardous material to the vicinity of its processing. This confinement is typically provided by piping, tanks, glove boxes, encapsulating material, and the like, along with any off gas systems that control effluent from within the primary confinement.

Program Manager. The individual designated by and under the direction of a Secretarial Officer/Deputy Administrator (NNSA), who is directly involved in the operation of facilities under his or her cognizance, and holds signature authority to provide technical direction through Heads of Field Elements/Operations Offices (including NNSA) to operating personnel for these facilities.

Prompt Notification. Timely reporting of the occurrence to the DOE Field Office and the DOE Headquarters Operations Center as required by the Significance Category and the reporting criteria of the occurrence.

Protective Clothing. Clothing identified for radiological use such as yellow coveralls, hoods, booties, rubber overshoes, and PC gloves. These are articles designed for radiological use and are removed at the exit of the radiological area. Company supplied coveralls, laboratory coats, modesty clothing, street clothes, or other clothing not identified as anti-contamination clothing (anti Cs) are to be considered personal clothing for the purposes of ORPS reporting.

Release. Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or otherwise disposing of substances into the environment. This includes abandoning/discarding any type of receptacle containing substances in an unenclosed containment structure but does not include permitted containment structures.

Reportable Occurrence. Occurrence to be reported in accordance with the criteria defined in this Appendix A.

Safety Class Structures, Systems, or Components. The structures, systems, or components, including portions of process systems, whose preventive or mitigative function is necessary to limit radioactive hazardous material exposure to the public, as determined from safety analyses. (10 CFR 830.3)

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Secretarial Officer. Secretarial Officers are the Secretary, Deputy Secretary, and Under Secretaries; and the Assistant Secretaries and Staff Office Directors reporting to the Secretary either directly or through the Deputy Secretary or Under Secretary. The following designations are also used to identify Secretarial Officers with specific responsibilities in various areas. (1) A Program Secretarial Officer (PSO) is an Assistant Secretary, Office Director, or NNSA Deputy Administrator. In the context of field operations, a PSO funds work at a particular site, facility or laboratory and is a “customer” of the field office. (2) A Lead Program Secretarial Officer (LPSO) is a PSO to whom designated field offices directly report and who has overall landlord responsibilities for the assigned direct reporting elements. (3) A Cognizant Secretarial Officer is a term used in the context of field operations to designate a PSO, not the LPSO, who is responsible for a laboratory or bounded set of facilities within a field office’s jurisdiction.

Short Form Report. An occurrence report submitted for Significance Category 4 events, which satisfy all of the written reporting requirements for these occurrences. The Short Form Report does not require the inclusion of corrective actions or lessons learned in the report.

Total Effective Dose. The sum of the *effective dose equivalent* (see def.) for external exposures and the committed dose equivalent for internal exposures.

Trained Investigator. An individual who has been qualified to perform causal analysis in response to a reportable occurrence. The individual should be able to satisfactorily complete the identification of Apparent Causes associated with an occurrence using the Causal Analysis Tree. The individual must also be qualified by their company to perform formal Root Cause analysis. For events that trigger a Type A or Type B DOE Investigation, the requirements contained in DOE O 225.1A take precedence relative to the minimum qualifications of individuals performing the investigation/causal analysis.

Unreviewed Safety Question. A situation where (1) the probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased, (2) the possibility of an accident or malfunction of a different type than any evaluated previously in the documented safety analysis could be created, (3) a margin of safety could be reduced, or (4) the documented safety analysis may not be bounding or may be otherwise inadequate. (10 CFR 830.3)

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5.0 REFERENCES

- (1) DOE O 225.1A, Accident Investigation
- (2) DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information
- (3) DOE G 231.1-1, Occurrence Reporting and Performance Analysis Guide
- (4) DOE G 231.1-2, Occurrence Reporting Causal Analysis Guide
- (5) DOE N 471.3, Reporting of Events of Security Concern
- (6) MP-DOCS-18.2, Records Management
- (7) MP-EP&C-12.1, Emergency Plan
- (8) MP-EP&C-12.5 Emergency Event Notification
- (9) MP-Q&SI-5.2, Price Anderson Amendment Act Reporting
- (10) MP-Q&SI-5.3, Corrective Action
- (11) Letter from Michael Adams to Frank Russo, July 12, 2006, (EM-FOAP-06-096)

6.0 RECORDS

Records generated by this procedure are classified in accordance with the table below, and dispositioned in accordance with MP-DOCS-18.2, Records Management.

Record Description	Classification
MP-COPS-9.6, Case File	Misc. Other Records/A16-1.2/Destroy 5 years after submittal or being superseded.
Occurrence Reports & related Objective Evidence	Facility Operating Record/ENV2-a-1-a/Destroy 5 years after Life of Facility

7.0 EXHIBITS

None

8.0 APPENDICES

Appendix A – Occurrence Reporting Criterion

Appendix B – Occurrence Report Preparation Instructions

Appendix C – Occurrence Reporting Model

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Appendix A – Occurrence Reporting Criterion

Group 1 - Operational Emergencies		
#	SC	Criterion
(1)	*OE	An Operational Emergency not needing further classification, as defined in DOE 151.1A, Chapter 5, Paragraph 2.
(2)	*OE	An Alert, as defined in DOE 151.1A, Chapter 5, Paragraph 3a.
(3)	*OE	A Site Area Emergency, as defined in DOE 151.1A, Chapter 5, Paragraph 3b.
(4)	*OE	A General Emergency, as defined in DOE 151.1A, Chapter 5, Paragraph 3c.
Group 2 – Personnel Safety and Health		
Subgroup A		Occupational Illnesses/Injuries
#	SC	Criterion
(1)	*1	Any occurrence due to DOE operations resulting in a fatality or terminal injury/illness. For fatalities caused by overexposures, the intent of this criterion is to report those caused by acute rather than chronic effects.
(2)	*1	Any single occurrence requiring in-patient hospitalization of three or more personnel.
(3)	2	Any single occurrence resulting in three or more personnel having Days Away, Restricted or Transferred (DART) cases per 29 CFR Part 1904.7.
(4)	*2	<i>Personnel exposure</i> (see def.) to chemical, biological or physical hazards above limits established by the Occupational Safety and Health Administration (refer to 29 CFR Part 1910) or American Conference of Governmental Industrial Hygienists, whichever is lower, and that requires the administration of medical treatment beyond simple first aid on the same day as the exposure. [29 CFR 1904.7(b)(5)(i) and (ii) define “medical treatment” and “first aid.”]
(5)	3	Personnel exposure to chemical, biological or physical hazards above limits established by the Occupational Safety and Health Administration (refer to 29 CFR Part 1910) or American Conference of Governmental Industrial Hygienists.
(6)	3	Any single occurrence resulting in a serious occupational injury. A serious occupational injury is an occupational injury that: (a) Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (b) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose, or a minor chipped tooth); (c) Causes severe hemorrhages or severe damage to nerves, muscles, or tendons; (d) Damages any internal organ; or (e) Causes second- or third-degree burns, affecting more than five percent of the body surface.

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Group 2 – Personnel Safety and Health - continued		
Subgroup B		Fires/Explosions
#	SC	Criterion
(1)	*1	Any unplanned fire or explosion within <i>primary confinement</i> (see def.) /containment boundaries for nuclear or hazardous material within a facility.
(2)	*2	Any unplanned fire or explosion in a nuclear facility that activates a fire suppression system (e.g., halon <i>discharge</i> (see def.), sprinkler heads activating), is extinguished by a fire department, or disrupts normal facility operations. [Note: The activation or degradation of <i>Safety Class</i> and <i>Safety Significant</i> (see def.) fire suppression systems are addressed by Group 4 Criteria.]
(3)	*3	Any unplanned fire or explosion in a non-nuclear facility that: a) Activates a fire suppression system, b) Takes longer than 10 minutes to extinguish following the arrival of fire protection personnel, or c) Disrupts normal operations in a high hazard facility.
(4)	*4	Any wild land fire (e.g., forest fire, grassland fire) or other fire outside of a DOE facility that has the potential to threaten the facility.
Subgroup C		Hazardous Energy Control
#	SC	Criterion
(1)	2	Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or disturbance of a previously unknown or mislocated hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas) resulting in a person contacting (burn, shock, etc.) hazardous energy.
(2)	3	Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.

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Group 3 – Nuclear Safety Basis		
Subgroup A		Technical Safety Requirement (see def.) Violations
#	SC	Criterion
(1)	*1	<p>Any violation of a Hazard Category 1, 2, or 3 nuclear facility's Technical Safety Requirement (or Operational Safety Requirement) Safety Limit.</p> <p>[Note: Safety Limits are high-level Technical Safety Requirement controls, used infrequently across the DOE Complex. As defined in 10 CFR 830.3, a Safety Limit is a limit on process variables associated with those safety class physical barriers, generally passive, that are necessary for the intended facility function and that are required to guard against the uncontrolled release of radioactive materials.]</p>
(2)	2	<p>Any violation or noncompliance of a Hazard Category 1, 2, or 3 nuclear facility's Technical Safety Requirement (or Operational Safety Requirement) Limiting Control Setting, Limiting Condition for Operation, Administrative Control, or Surveillance Requirement.</p> <p>Exception: An event consisting solely of a surveillance test performed after the prescribed surveillance period, and in which the equipment was found to be capable of performing its specified safety function. (See separate criterion for late surveillance tests below.)</p>
(3)	3	<p>Any violation or noncompliance of a hazard control specified in a Hazard Category 1, 2, or 3 nuclear facility's DOE approved Documented Safety Analysis [issued pursuant to 10 CFR 830.204 and including Basis for Interim Operation (BIO), etc.], or DOE issued Safety Evaluation Report that are not addressed by Criteria 3A(1) and 3A(2).</p> <p>Exceptions:</p> <p>(a) An event consisting solely of a violation of a safety management program (e.g., quality assurance, personnel training) cited in the Documented Safety Analysis.</p> <p>(b) An event consisting solely of a surveillance test performed after the prescribed surveillance period, and in which the equipment was found to be capable of performing its specified safety function. (See separate criterion for late surveillance tests below.)</p>
(4)	4	<p>An event consisting solely of a surveillance test performed after the prescribed surveillance period, and in which the equipment was found to be capable of performing its specified safety function.</p>

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Group 3 – Nuclear Safety Basis - continued

Subgroup B		Documented Safety Analysis Inadequacies
#	SC	Criterion
(1)	2	Determination of a positive <i>Unreviewed Safety Question</i> (USQ; see def.) that reveals a currently existing inadequacy in the documented safety analysis [e.g., Safety Analysis Report (SAR) or Basis for Interim Operation (BIO)].
(2)	3	Declaration of a potential inadequacy of the documented safety analysis (a potential positive USQ), per 10 CFR 830.203(g).
Subgroup C		Nuclear Criticality Safety
#	SC	Criterion
(1)	*1	A loss of multiple nuclear criticality process-condition controls, where processes include operation, transport, and storage of fissionable materials, such that no valid controls are available to prevent a criticality accident.
(2)	2	A loss of one or more nuclear criticality process-condition controls such that an accidental criticality is possible from the loss of an additional process-condition control, where processes include operation, transport, and storage of fissionable materials.

Group 4 – Facility Status

Subgroup A		Safety Structure/System/Component Degradation
#	SC	Criterion
(1)	3	<i>Performance degradation</i> (see def.) of any Safety Significant or <i>Safety Class Structure, System, or Component</i> (SSC; see def.) that prevents satisfactory performance of its design function when it is required to be operable.
(2)	4	Performance degradation of any Safety Class SSC when not required to be operable.
Subgroup B		Operations
#	SC	Criterion
(1)	*2	A Stop Work Order issued by a DOE office.
(2)	2	Actuation of a Safety Class SSC, or its alarms, resulting from an actual unsafe condition. Spurious alarms (e.g., due to electronic noise, radon/thoron decay) should not be reported.
(3)	3	Actuation of a Safety Significant SSC, or its alarms, resulting from an actual unsafe condition. Spurious alarms (e.g., due to electronic noise, radon/thoron decay) should not be reported.
(4)	3	Any facility evacuation, not including a precautionary evacuation, in response to an actual event. If the event fell under another reporting criterion, then evacuation should be reported as well by noting multiple reporting criteria for the single occurrence.

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Group 4 – Facility Status Continued		
Subgroup B		Operations
#	SC	Criterion
(5)	4	A facility operational event caused by deviating from a written procedure or using an inadequate procedure resulting in an adverse effect on safety, such as: an inadvertent facility or operations shutdown (i.e., a change of operational mode or curtailment of work or processes), facility or operations shutdown due to alarm response procedures, inadvertent process liquid transfer, or inadvertent release of hazardous material from its engineered containment.
(6)	*4	A facility or operations shutdown (i.e., a change of operational mode or curtailment of work or processes) directed by management for safety reasons.
(7)	4	A facility or site stand-down resulting from safety reasons reportable as an occurrence or occurrences. [Note: This is a secondary reporting criterion and does not require a separate occurrence report.]
(8)	4	Any event or condition that would prevent immediate facility or offsite emergency response capabilities.
Subgroup C		Suspect/Counterfeit and Defective Items or Material
#	SC	Criterion
(1)	3	Discovery of any suspect/counterfeit item or material found in a Safety Class or Safety Significant SSC. A suspect item or material is one whose documentation, appearance, performance, material, or other characteristics may have been misrepresented by the vendor, supplier, distributor, or manufacturer. A counterfeit item or material is one for which sufficient evidence exists that deliberate misrepresentation has occurred.
(2)	4	Discovery of any suspect/counterfeit item or material other than office supplies, office equipment, or household products.
(3)	4	Discovery of any defective item or material, other than a suspect/counterfeit item or material, in any application whose failure could result in a loss of safety function, or present a hazard to public or worker health and safety. A defective item or material is any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level.

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Group 5 – Environmental

Subgroup A		Releases
#	SC	Criterion
(1)	*2	Any release (onsite or offsite) of a hazardous substance, material, waste, or radionuclide from a DOE facility, that is above permitted levels and exceeds the <i>reportable quantities</i> (see def.) specified in 40 CFR 302 or 40 CFR 355.
(2)	2	Any discharge that exceeds 100 gallons of oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. For operations involving oil field crude or condensate, any discharge of 100 barrels or more is reportable under this criterion.
(3)	4	Any release (onsite or offsite) of a hazardous substance, material, waste, or radionuclide from a DOE facility that is above permitted levels and exceeds 50 percent of the reportable quantities specified in 40 CFR 302 or 40 CFR 355.
(4)	4	Any release (onsite or offsite) of a hazardous substance, material, waste, or radionuclide from a DOE facility that must be reported to outside agencies in a format other than routine periodic reports. (However, oil spills of less than 10 gallons and with negligible environmental impact need not be reported in ORPS.)
Subgroup B		Ecological and Cultural Resources
#	SC	Criterion
(1)	2	Any occurrence causing significant impact to any ecological resource for which DOE is a trustee (e.g., destruction of a critical habitat, damage to an historic/archeological site, damage to wetlands).

Group 6 – Contamination/Radiation Control

Subgroup A		Loss of Control of Radioactive Materials
#	SC	Criterion
(1)	2	Identification of radioactive material offsite due to DOE operations/activities that exceeds applicable DOE-approved authorized limits (pursuant to DOE O 5400.5). This applies to items/areas consisting of radioactive material. This does not apply to items with surface radioactive contamination. See Criterion 6B(1) below for criteria for identification of items with surface radioactive contamination.
(2)	2	Loss of radioactive material that exceeds 100 times the quantities specified in 10 CFR Part 835, Appendix E (excluding consumer products such as smoke detectors), or loss of accountability of such material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered.

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Group 6 – Contamination/Radiation Control - Continued		
Subgroup A		Subgroup A
#	SC	Criterion
(3)	3	Loss of radioactive material which exceeds 1 times and no greater than 100 times the quantities specified in 10 CFR Part 835, Appendix E (excluding consumer products such as smoke detectors) or loss of accountability of such material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered.
Subgroup B		Spread of Radioactive Contamination
#	SC	Criterion
(1)	2	<p>Identification of radioactive contamination offsite due to DOE operations/activities that exceeds applicable DOE-approved authorized limits (pursuant to DOE 5400.5) or, if there are none, the values found in 10 CFR Part 835, Appendix D.</p> <p>[Note: All releases of property containing or potentially containing residual radioactivity are subject to requirements in DOE 5400.5. Compliance with 10 CFR Part 835, Appendix D values does not necessarily satisfy the requirements in DOE 5400.5.]</p>
(2)	2	<p>Identification of onsite radioactive contamination greater than 100 times the total contamination values in 10 CFR 835 Appendix D and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and areas controlled in accordance with 10 CFR 835.1102(c). For tritium, the reporting threshold is 100 times the removable contamination values in 10 CFR Part 835, Appendix D.</p> <p>Notes:</p> <p>(a) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.</p> <p>(b) This also does not apply to legacy radioactive contamination, which will be reported under a separate criterion below.</p> <p>(c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.</p>

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Group 6 – Contamination/Radiation Control - continued		
Subgroup B		Spread of Radioactive Contamination - continued
#	SC	Criterion
(3)	3	<p>Identification of onsite radioactive contamination greater than 10 times the total contamination values in 10 CFR 835 Appendix D and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and areas controlled in accordance with 10 CFR 835.1102(c). For tritium, the reporting threshold is 10 times the removable contamination values in 10 CFR Part 835, Appendix D.</p> <p>Notes: (a) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits. (b) This also does not apply to legacy radioactive contamination, which will be reported under a separate criterion below. (c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.</p>
(4)	4	<p>Identification of onsite legacy radioactive contamination greater than 10 times the total contamination values in 10 CFR 835 Appendix D and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and areas controlled in accordance with 10 CFR 835.1102(c). For tritium, the reporting threshold is 10 times the removable contamination values in 10 CFR Part 835, Appendix D.</p> <p>Notes: (a) Legacy radioactive contamination is radioactive contamination resulting from historical operations that are unrelated to current activities. (b) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits. (c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.</p>
Subgroup C		Radiation Exposure
#	SC	Criterion
(1)	*1	<p>Determination of a dose that exceeds the limits specified in 10 CFR Part 835, Subpart C, Occupational Radiation Protection or DOE O 5400.5, Chapter II, Item 1 (i.e., 100 mrem <i>Total Effective Dose</i> [TED; see def.] for offsite exposures to a <i>member of the public</i> [see def.]</p>

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Group 6 – Contamination/Radiation Control – continued

Subgroup C		Radiation Exposure
#	SC	Criterion
(2)	2	Any unmonitored exposure that exceeds the values for providing personnel dosimeters and bioassays as stated in 10 CFR 835.402(a) or 10 CFR 835.402(c).
(3)	3	Any single occupational exposure that exceeds an expected exposure or dosimetry result by: (1) 500 mrem <i>Committed Effective Dose Equivalent</i> (CEDE; see def.), or (2) the greater of 10 percent or 100-mrem effective dose equivalent due to external exposure.
(4)	3	Determination of an estimated annual dose that exceeds 10 mrem TED for offsite exposures to a member of the public from air pathways only.
Subgroup D		Personnel Contamination
#	SC	Criterion
(1)	*2	Any occurrence requiring offsite medical assistance for contaminated personnel, including transporting a person to an offsite medical facility or bringing offsite medical personnel onsite to perform treatment or decontamination.
(2)	2	Identification of personnel or clothing contamination offsite due to DOE operations that exceeds the values for total contamination found in 10 CFR Part 835, Appendix D. For tritium use the values for removable contamination found in 10 CFR Part 835, Appendix D.
(3)	4	Any onsite contamination of personnel or clothing (excluding site provided <i>protective clothing</i> [see def]) that exceeds 10 times the values for total contamination identified in 10 CFR Part 835, Appendix D. The contamination level must be based on direct measurement and not averaged over any area. This criterion does not apply to tritium contamination.

Group 7 – Nuclear Explosive Safety (Note: Group 7 is not applicable to AMWTP and is included only for completeness)

#	SC	Criterion
(1)	*1	Damage to a nuclear explosive that results in a credible threat to nuclear explosive safety.
(2)	2	The unauthorized introduction of electrical energy into a nuclear explosive.
(3)	2	The unauthorized compromise of a nuclear explosive safety feature when installed on a nuclear explosive.
(4)	2	Inadvertent substitution of a nuclear explosive for a nuclear explosive-like assembly (NELA) or vice versa.
(5)	2	A violation of a nuclear explosive safety rule (NESR).
(6)	2	Damage to a training unit during training operations indicative of a hazard to a nuclear explosive.

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Group 7 – Nuclear Explosive Safety - Continued

(Note: Group 7 is not applicable to AMWTP and is included only for completeness)

#	SC	Criterion
(7)	3	The use of uncertified personnel or unauthorized equipment/tooling during a nuclear explosive operation.
(8)	3	A violation of the two-person concept of operations.
(9)	3	Revocation of the Personnel Assurance Program (PAP) certification of an individual (for cause).

Group 8 – Transportation

#	SC	Criterion
(1)	*1	Any offsite transportation incident involving hazardous materials that would require immediate notice pursuant to 49 CFR Part 171.15, namely: (a) As a direct result of hazardous materials: (i) A person is killed, (ii) A person receives injuries requiring hospitalization, (iii) Estimated property damage exceeds \$50,000, (iv) An evacuation of the general public occurs lasting 1 hour or more, (v) One or more transportation arteries or facilities are closed or shut down for 1 hour or more, or (b) Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of radioactive materials, or (c) Fire, breakage, spillage, or suspected contamination occurs involving shipment of infectious substances (etiologic agents), or (d) There has been a release of a marine pollutant in a quantity exceeding 450 liters (119 gallons) for liquids or 400 kilograms (882 pounds) for solids, or (e) The operational flight pattern or routine of an aircraft is altered.
(2)	3	Any offsite transport of hazardous material, including radioactive material, whose quantity or nature (e.g., physical or chemical composition) is different than intended, such that the receiving organization's operations were impacted/disrupted or the transport resulted in the initiation of corrective actions by the originating organization.
(3)	4	Any onsite transport of hazardous material, including radioactive material, whose quantity or nature (e.g., physical or chemical composition) is different than intended, such that the receiving organization's operations were impacted/disrupted or the transport resulted in the initiation of corrective actions by the originating organization.
(4)	4	Any packaging or transportation activity involving the onsite release of radioactive materials, etiologic agents, hazardous substances, hazardous waste, or marine pollutants.

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Group 9 – Noncompliance Notifications

#	SC	Criterion
(1)	3	Any enforcement action (other than associated with the Price Anderson Amendment Act) involving 10 or more cited violations, and/or an assessed fine of \$10,000 or more. Note: This criterion applies to the enforcement action as initially received from the regulator. Thus the enforcement action would still be reportable even if the fine is later reduced below \$10,000 or the number of violations reduced below 10.
(2)	4	Any written notification from an outside regulatory agency that a site/facility is considered to be in noncompliance with a schedule or requirement (e.g., Notice of Violation, Notice of Intent to Sue, Notice of Noncompliance, Warning Letter, Finding of Violation, Finding of Alleged Violation, Administrative Order, or a similar type of notification or enforcement action).

Group 10 – Management Concerns/Issues

#	SC	Criterion
(1)	2	Any event resulting in the initiation of a Type A or B accident investigation as categorized by DOE O 225.1A. Note: This reporting criterion may raise the significance category of an occurrence already reported under separate criteria. Multiple reporting criteria should be noted when appropriate.
(2)	1-4 [†]	An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the NFM or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. [†] Note: An SC 1 occurrence report requires Prompt Notification.
(3)	1-3 [†]	A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the three significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. [†] Note: An SC 1 occurrence report requires Prompt Notification.
(4)	*4	Any occurrence that may result in a significant concern by affected state, tribal, or local officials, press, or general population; that could damage the credibility of the department; or that may result in inquiries to Headquarters.
(5)	*4	Any occurrence of such significant immediate interest to offsite personnel and organizations that it warrants prompt notification to the DOE Headquarters Operations Center (DOE HQ OC), and which is not already designated elsewhere in this set of reporting criteria to have prompt notification (denoted by having an asterisk (*) next to the significance category).

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Appendix B – Occurrence Report Preparation Instructions

1. Those fields marked with an asterisk (*) preceding them are required for all reports (Notification, Update, Final, and Short Form).
2. Fields marked with a pound sign (#) are required under certain conditions, for example, depending on occurrence type, report type, or the answer to a previous question.
3. Items 1 through 13, 16 through 22, 24, 25, 28 through 30, and 34 of the occurrence report are required fields for the Notification Report. Some of these fields are computer generated.
4. A Short Form Report requires all of the Notification Report required fields plus Item 35.
5. In both the Notification Report and the Short Form Report, additional fields may be required depending on the circumstances (e.g., Items 14 and 15).
6. For all reports, data may be entered in the remaining fields when known.
7. For the Update and Final Reports, information on the Notification Report should be retained and updated as better and additional information becomes available.
8. The Facility Representative and Program Manager may provide comments in Items 38 and 39, respectively, for all reports, except reports that have already been finalized (which include Short Form Reports).

Field Name	Instructions
*1. Occurrence Report Number	<p>The occurrence report number is automatically generated by the system. It consists of the following:</p> <ul style="list-style-type: none"> • DOE Field Office • Area Office (if applicable) • DOE contractor • Facility • Calendar Year the occurrence was first reported • Sequential number of the occurrence by facility <p>Items are separated from each other by a dash.</p> <p>A temporary number is assigned when a Notification Report is first created. When the Notification Report is successfully transmitted, a permanent number will be automatically generated by the ORPS system, and may not be modified.</p>
*2. Facility Name	Select the following from the drop-down menu: <i>AMWTF</i>
*3. Facility Function Code	Select the following from the drop-down menu: <i>08 - Nuclear Waste Operations/Disposal</i>
*4. Site Name	This field is automatically generated by the system, and indicates the logged users' site. This field may not be modified.

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Field Name	Instructions
*5. Manager/Designee	<p>Enter the name, title, and phone number of the responsible facility manager or designee who approved this report, either by personally transmitting the electronic report or by signing the hard copy report.</p> <p>By selecting a facility manager name from the drop-down menu, the title and phone number fields will be filled in automatically, but may be overridden if necessary. Only Facility Managers that are registered ORPS users will appear in the drop down menu. If the appropriate facility manager's name does not appear in the list, you may alternatively enter a name in the input box next to the dropdown menu. You will also have to fill in the phone number and title as well. A selection made from the drop-down menu will override any information entered in the input box. This field is required for all reports.</p>
*6. Manager Phone	<p>Enter a telephone number, including area code, for this person. Telephone number format is AAAPPPNNNN, where AAA is the area code, PPP is the prefix, and NNNN is the number. Any amount of punctuation may be included in any way desired, as long as 10 numeric digits are included and the field does not exceed 15 characters in total length.</p> <p>Phone numbers are displayed as (AAA) PPP-NNNN. Example: 208/555-1212 → (208) 555-1212</p> <p>This field is required for all reports.</p>
*7. Job Title	Enter the specific job title of the Manager/Designee. This is usually the " <i>Facility Manager/Nuclear Facility Manager or Shift Manager</i> ".
*8. Originator/Transmitter	This field is automatically generated by the system, and displays the user ID of the logged in user.
*9. Originator Phone	This field is automatically generated by the system, and displays the telephone number of the logged in user.
*10. Originator/Title	This field is automatically generated by the system, and displays the title of the logged in user.
*11. Division/Project	Enter: AMWTP
*12. Secretarial Office	Select the following from the drop-down menu: EM – Environmental Management
*13. System/Building/Equipment	Identify all systems, equipment, or structural items involved in the occurrence, as applicable. In addition, in the case of component failures or defective parts or materials, provide such information as the manufacturer, model number, and size. The most significant item(s) should be listed here. Additional information can be provided in the Description of Occurrence.

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Field Name	Instructions
#14. Authorized Classifier/ Reviewing Official	Leave this field blank; AMWTP is not a facility where classified operations are conducted, classified information is generated, or UCNI or other controlled information is available.
#15. Classification Date	Leave this field blank; AMWTP is not a facility where classified operations are conducted, classified information is generated, or UCNI or other controlled information is available.
*16. UCNI	Enter: "N" UCNI or other controlled information is not available at the AMWTP
*17. Plant Area	Indicate the name of the site-specific plant area (e.g., Building WMF-634, North Box Line) where the occurrence took place. This field is required for all reports.
*18. Discovered Date/Time	Enter the date and time when the facility staff discovered the event or condition being reported. Date format is MM/DD/YYYY. Example: June 3, 1996 would be entered as: 06/03/1996 The time format is military time: HHMM, with midnight represented as 0000. These fields are required for all reports. Examples: 6:30 AM – 0630 11:59 PM – 2359
*19. Categorized Date/Time	Enter the date and time when the Facility Manager determined that the event or condition constituted a Reportable Occurrence and determined its category (Significance Category OE or 1-4). Use the same date and time format as describe for Field #18. These fields are required for all reports.
*20. Subject/Title of Occurrence	Enter a brief title or description (140 characters or less) that best details the nature, cause, and result of the occurrence. This field is required for all reports. Capitalize the first letter of each word in the title.
*21. Reporting Criteria	Select one or more Reporting Criterion/Criteria from Appendix A of this procedure (a discussion of the reporting criteria can be found in Section 6 of DOE Manual 231.1-2.) All of the specific reporting criteria applicable for an occurrence should be identified. NOTE: The Significance Category field will contain the highest significance category associated with the selected criteria. For example, if criteria with significance categories 4, 3, and 1 were selected, then the significance category would be 1.
*22. Significance Category	This field is automatically assigned by the system and is dependent on the Reporting Criterion/Criteria selected in Field 21.

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Field Name	Instructions
23. Recurring Event	If this is a recurring event, check this box. Otherwise leave it blank. When this box is checked, the significance category will be set to “R” automatically regardless of what significance category is derived from the selected reportable criteria.
*24. Subcontractor Involved	If a subcontractor is involved in this occurrence, choose <i>Yes</i> . Otherwise choose <i>No</i> . If <i>Yes</i> is selected, enter the name of the subcontractor(s). This field is required for all reports.
*25. Description of Occurrence	<p>The following instructions should be followed when entering the description of the occurrence:</p> <ul style="list-style-type: none"> a. The first paragraph of the Occurrence Description should relay the essential nature of the event (i.e., a summary of the occurrence in newspaper style). b. All information should be clear and succinct. Avoid redundant and unnecessary text, and lengthy “log book” accounts, unless a discussion of the event in chronological order is considered essential to understanding the event. c. Complex and more significant occurrences should warrant a greater level of detail. Significance Category 4 occurrences would likely need only a short paragraph under Occurrence Description. However, all reports should present enough information so that the general reader understands why the event needs to be reported and what the effect is. d. Avoid jargon and uncommon or site/facility-specific abbreviations and acronyms. If used, acronyms should be initially spelled out. e. Unless necessary to record and explain the event (e.g., suspect/counterfeit items or material), use general descriptions of equipment, procedures, etc., rather than presenting lengthy detailed titles and the numbers and letters assigned to those items. f. Quantify the level of contamination, dose, release, and damage (e.g., estimate the acres of wild land burned) when possible, instead of merely stating a reportable limit was exceeded. g. Use active rather than passive voice whenever possible. For example, write, “<i>the electrician</i> severed the conduit” rather than “the conduit was severed.” <p>The type of information to be provided in the description includes, but is not limited to, the following:</p>

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Field Name	Instructions
	<p>Item *25 Continued:</p> <p>The method of discovery;</p> <ul style="list-style-type: none"> Any component failures and the failure mode; Any personnel errors involved, including the type and result of the error; Any procedural problem encountered; The response of any automatic or manual safety systems and the signals which initiated and terminated their operation; The duration of any failures; Operator actions that affected the course of events; and The loss of any safety equipment. <p>When appropriate for clarification, photos, sketches, and drawings should be maintained with the occurrence report record. For recurring events, include all pertinent information to describe how the event was determined to be recurring.</p> <p>This field is required for all reports.</p>
#26. DOE HQ OC Notifications	<p>Enter the date and time when the DOE HQ Operations Center was notified and the name and organization of the person notified. Use the same date and time format as describe for Field #18.</p> <p>These fields are required for all reports that are categorized as Operational Emergencies and Significance Category 1 occurrences. The field is also required for Significance Category 2 occurrences as directed by the Field Office. In addition, the field is required for specific Significance Category 2, 3, and 4 occurrences identified with an asterisk (*) next to the reporting criterion.</p>
#27. Other Notifications	<p>Enter the dates(s) and time(s) of notification of state and local officials or other agencies and the name(s) and organization(s) of the individual(s) notified. Additional information can be provided in the Immediate Actions Taken field. Use the same date and time format as describe for Field #18.</p>
*28. Operating Conditions	<p>Describe the operational status of the facility or equipment at the time of the occurrence including, for example, pertinent temperatures, pressures, or other parameters necessary for evaluation of the occurrence and its consequences. If said information is not applicable, enter "Does not apply".</p> <p>This field is required for all reports.</p>

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Field Name	Instructions
*29. Activity Category	<p>Select the activity that best describes the ongoing activity at the time of the occurrence.</p> <ul style="list-style-type: none"> 01 - Construction 02 - Maintenance 03 - Normal Operations (other than Activities specifically listed in this Category) 04 - Start-up 05 - Shutdown 06 - Facility/System/Equipment Testing 07 - Training 08 - Transportation (For search only) 08A - Transportation Onsite 08B - Transportation Offsite 09 - Emergency Response 10 - Inspection/Monitoring 11 - Facility Decontamination/Decommissioning 12 - Research <p>This field is required for all reports.</p>
*30. Immediate Actions Taken	<p>Describe the immediate or remedial actions taken to return the facility, system, or equipment item to service; to correct or alleviate the anomalous condition; and to record the results of those actions. These may include temporary measures to keep the facility in a safe standby condition or to permit continued operation of the facility without compromising safety until a more thorough investigation or permanent solution can be affected.</p> <p>This field is required for all reports.</p>
#31. Causes	<p>Select all of the codes from the Causal Analysis Tree that best represent the causes of the occurrence. If you select A3 (Human Factors) as the Cause Code, select any associated causes (couplets) from the couplet selection list or choose a better couplet for the associated occurrence.</p> <p>This field is required for Final reports and optional for Short Form Reports.</p>
#32. Description of Cause	<p>Discuss the causes of the occurrence to include all causes and the corrective actions identified, including causal analysis contributing to a recurring event. Do not repeat a description of the occurrence, but discuss the results of the causal analysis. The root cause analysis methodology used should be identified. A detailed description of the corrective actions is required to demonstrate that the identified actions will adequately address the cause(s) of the problem.</p> <p>This field is required for all Final reports, except Short Form Reports.</p>

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Field Name	Instructions
#33. Evaluation by Nuclear Facility Manager	<p>With the information available, the Facility Manager/Nuclear Facility Manager should provide his or her evaluation of the occurrence and its effect or possible effect on the plant, system, program, etc. The Facility Manager/Nuclear Facility Manager may later supplement this evaluation with additional entries in Update reports or in the Update/Final report.</p> <p>This field is required for all Notification reports where “Further Evaluation Required” is “Yes” and “Before Further Operation” is “Yes”. It is also required for all Update and Final reports, but it is optional for Short Form Reports.</p>
*34. Further Evaluation Required	<p>If this occurrence will require further evaluation, choose “Yes”. Otherwise choose “No”. For Cancelled and Update/Final Reports, “Further Evaluation Required” should be “No”. This field is required for Notification, Update, Final, and Short Form Reports.</p> <p>If further evaluation is required, specify if this occurrence will require further evaluation before further operation. For Cancelled and Update/Final Reports, “Before Further Operation?” should be “No”.</p> <p>This field is required for all reports where “Further evaluation Required” is “Yes”.</p> <p>If further evaluation is required before further operation, enter the name of the person who will perform further evaluation on this occurrence and the date when the further evaluation will be completed.</p>

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Field Name	Instructions
#35. Integrated Safety Management (ISM)	<p>Enter one or more ISM codes from the following list to identify an observed weakness(es) in the implementation of the ISM program (e.g., failure to properly define the work scope, or failure to perform an adequate activity level hazards analysis).</p> <p>Available ISM codes are:</p> <p>1 – Define Scope of Work – Missions are translated into work, expectations are set, tasks are identified and prioritized, and resources are allocated.</p> <p>2 – Analyze the Hazards – Hazards are associated with the work identified, analyzed, and categorized.</p> <p>3 – Develop and Implement Hazard Controls – Applicable standards and requirements are identified and agreed-upon, controls to prevent/mitigate hazards are identified, the safety envelope is established, and controls are implemented.</p> <p>4 – Perform Work Within Controls – Readiness is confirmed and work is performed safely.</p> <p>5 – Provide Feedback and Continuous Improvement – Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory enforcement actions occur.</p> <p>6 – N/A (Not applicable to ISM Core Functions as determined by management review) – Items that do not fall into the realm of ISM Core Functions; e.g., Natural Phenomena, Wild Fires, Counterfeit/Suspect Parts, Notifications of non-compliance (Federal, State, Local), Legacy Issues that could not have been anticipated, End of Life equipment failures where maintenance is not an issue, etc.</p> <p>This field is required for all Final reports, including Short Form Reports.</p>
#36. Lessons Learned	<p>Describe what lessons can be learned from this occurrence, in order to help prevent similar events from happening.</p> <p>This field is required for Final reports and is optional for Short Form Reports.</p>

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Field Name	Instructions
#37. Similar Occurrence Reports	<p>Indicate by their report numbers any similar occurrence(s) of which you are aware for this facility or other facilities, including similar occurrences contributing to a recurring event. A discussion describing the analysis of similar occurrence reports should be included in Field 30 or Field 31, as appropriate. Also, identify any known commercial reactor Licensee Event Reports (LER) or other related documents that describe similar occurrences. The purpose of this item is to identify, if recognized, occurrences that might suggest a generic problem. It also serves to identify generic problems that may result in single or common lessons learned.</p> <p>This field is required for Final reports and optional for Short Form Reports.</p>
#38. User Defined Fields (two of them)	<p>These optional fields can be used to store facility-specific information (e.g., a cross-reference to performance indicator data or a site-specific number or name). They cannot exceed 124 characters in length for each field.</p>
#39. Corrective Actions	<p>Enter a complete description of the CA and the target date when completion of the CA is anticipated. A complete list of corrective actions should be included in the report to ensure it can stand on its own (i.e., reviewers do not have to search for other reports, etc).</p> <p>The target date shall match the assigned due date of the CA that is recorded in the "Local Tracking #" field in TrackWise™ corrective action tracking system.</p> <p>The Actual Completion Date is not required for corrective actions. Enter in the "Actual Completion Date" field, the TrackWise™ Item Number of the CA recorded in the TrackWise™ corrective action tracking system.</p> <p>All CA items entered in ORPS with the assigned TrackWise™ Item Number of the CA are considered closed and require no further action in the ORPS database.</p> <p>Corrective Actions are required for Final reports and optional for Short Form Reports.</p>
#40. Facility Representative Comments	No entry is required in this field.
#41. Program Manager Comments	No entry is required in this field.

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Appendix C – Occurrence Reporting Model

Significance Category	Timeliness ¹	Prompt Notification	Investigation	Causal Analysis	Corrective Actions	Report Approvals	C/A Closures	C/A Effectiveness	Lessons Learned ³
Operational Emergencies (defined by DOE O 151.1A)	Cat: ASAP PN: NLT 15 min if further classified; NLT 30 min if not further classified WN: COB next business day not to exceed 80 hrs UR: As needed FR: 45 Days	DOE Facility Representative & DOE Headquarters Operations Center (OC)	Team with Trained Investigator. DOE Consider Accident Investigation	Root Cause Determined	Remedy Problem, Prevent Recurrence, & Preclude Similar Problems	DOE Facility Representative & DOE Program Manager Approval	Contractor Document & Independently Verify	Contractor Assess Effectiveness to Prevent Recurrence	Enter into DOE LL Database & Coverage in OE Summary
Significance Category 1 Reportable Occurrence	Cat: NLT 2 hrs PN: NLT 2 hrs WN: COB next business day not to exceed 80 hrs UR: As needed FR: 45 days	DOE Facility Representative & DOE Headquarters Operations Center (OC)	Team with Trained Investigator. DOE Consider Accident Investigation	Root Cause Determined	Remedy Problem, Prevent Recurrence, & Preclude Similar Problems	DOE Facility Representative & DOE Program Manager Approval	Contractor Document & Independently Verify	Contractor Assess Effectiveness to Prevent Recurrence	Enter into DOE LL Database & Coverage in OE Summary
Significance Category R Includes All Recurring Category 1, 2, 3, and/or 4 Reportable & Non-Reportable Occurrences	Cat: NLT 2 hrs WN: COB next business day UR: As needed FR: 45 days		Trained Investigator	Root Cause Determined	Remedy Problem, Prevent Recurrence, & Preclude Similar Problems	DOE Facility Representative Approval	Contractor Document & Independently Verify	Contractor Assess Effectiveness to Prevent Recurrence	Enter into DOE LL Database & Optional Coverage in OE Summary
Significance Category 2 Reportable Occurrence	Cat: NLT 2 hrs PN: NLT 2 hrs WN: COB next business day UR: As needed FR: 45 days	DOE Facility Representative (DOE HQ OC at Field Office Discretion) ²	Trained Investigator	Root Cause Determined	Remedy Problem & Prevent Recurrence	DOE Facility Representative Approval	Document & Verify by Sampling	Optional	Enter into DOE LL Database & Optional Coverage in OE Summary
Significance Category 3 Reportable Occurrence	Cat: NLT 2 hrs PN: NLT 2 hrs WN: COB second business day UR: As needed UFR: 31 days FR: 45 days	DOE Facility Representative (DOE HQ OC) ²	Critique/ Fact Finding	Apparent Cause Determined	Remedy Problem & Prevent Recurrence	DOE Facility Representative Approval	Document (Verification Optional)	Optional	Enter into DOE LL Database
Significance Category 4 Reportable Occurrence	Cat: NLT 2 hrs PN: NLT 2 hrs (as required) Short Form Report: COB second business day	(DOE Facility Representative & DOE HQ OC) ²	No reporting of causal analysis or lessons learned in ORPS. The reporting of corrective actions is optional. Reportable and non-reportable occurrences are managed per AMWTP corrective action programs						

PN: Prompt Notification from Categorization Date and Time
WN: Written Notification from Categorization Date and Time
FR: Final Report from Categorization Date and Time

UFR: Updated Final Report
UR: Update Report
NLT: No Later Than
COB: Close of Business
OE: Operating Experience

1: Cat: Categorization Time from Discovery Date and Time
2: Specific Significance Category 2, 3, and 4 occurrences (identified with an asterisk in the reporting criteria listed in Section 6) also require Prompt Notification to the DOE HQ EOC
3: LL: Lessons Learned